Claims

What is claimed is:

1. A device for regulating the flow of intravenous fluid comprising:

a top having an inlet;

a bottom having an outlet;

wherein the top and the bottom are rotatably connected and define a housing;

wherein the inlet and outlet define a fluid passage through the housing for the intravenous fluid; and

wherein at least either the top or the bottom comprises parylene.

2. The device of claim 1 wherein the device is characterized in having a medium static turning torque less than about 42 in.-oz.

3. The device of claim 2 wherein the device is characterized in having a medium dynamic turning torque, and wherein a sum of the medium turning torques is less than about 84 in.-oz.

4. The device of claim 1 wherein the parlyene is selected from the group consisting of parylene N, parylene C, and parylene D.

5. The device of claim 1 further comprising a diaphragm disposed in the housing.

6. The device of claim 5 further comprising a diaphragm holder disposed in the housing proximate to the bottom, wherein the diaphragm is adapted to be sealingly engaged to the diaphragm holder.

7. The device of claim 6 wherein the diaphragm holder further comprises parylene.

8. The device of claim 7 wherein the device is characterized in having a medium dynamic turning torque and a medium static turning torque, and wherein a sum of the medium turning torques is less than about 84 in.-oz.

9. The device of claim 7 wherein the sum of the medium turning torques is less than about 61 in.-oz.

10. A device for regulating the flow of intravenous fluid comprising:

a top having an inlet;

a bottom having an outlet;

wherein the top and the bottom are rotatably connected and define a housing;

wherein the inlet and outlet define a fluid passage through the housing for the intravenous fluid;

a diaphragm holder disposed in the housing; and

wherein at least either the top or bottom or the diaphragm holder comprises parylene.

11. The device of claim 10 wherein the device is characterized in having a medium static turning torque less than about 42 in.-oz.

12. The device of claim 11 wherein the device is characterized in having a medium dynamic turning torque, and wherein a sum of the medium turning torques is less than about 84 in.-oz.

13. The device of claim 10 wherein the parlyene is selected from the group consisting of parylene N, parylene C, and parylene D.

14. The device of claim 10 further comprising a diaphragm disposed in the housing and adapted to be sealingly engaged to the diaphragm holder

15. The device of claim 14 wherein the diaphragm holder comprises parylene.

16. The device of claim 15 wherein the device is characterized in having a medium dynamic turning torque and a medium static turning torque, and wherein a sum of the medium turning torques is less than about 84 in.-oz.

17. The device of claim 10 further comprising a channel disposed in the diaphragm holder.

18. The device of claim 10 wherein the parylene has a thickness of about .10 microns to about 3.0 microns